

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK**

RENSSELAER POLYTECHNIC INSTITUTE and CF
DYNAMIC ADVANCES LLC,

1:18-cv-549 (BKS/TWD)

Plaintiffs,

v.

AMAZON.COM, INC.,

Defendant.

Appearances:

For Plaintiffs:

Christopher A. Seidl
Benjamin C. Linden
Mary Pheng
Robins Kaplan LLP
800 LaSalle Avenue, Suite 2800
Minneapolis, MN 55402

Bryan J. Vogel
Annie Huang
Robins Kaplan LLP
900 Third Avenue, Suite 1900
New York, NY 10022

Li Zhu
Robins Kaplan LLP
2006 Kala Bagai Way, Suite 22
Berkeley, CA 94704

For Defendant:

John G. Powers
Hancock Estabrook, LLP
AXA Tower I, Suite 1800
100 Madison Street
Syracuse, NY 13202

Joseph R. Re
Jon W. Gurka
Jeremy A. Anapol
Knobbe, Martens, Olson & Bear, LLP
2040 Main Street, 14th Floor
Irvine, CA 92614

Colin B. Heideman
Knobbe, Martens, Olson & Bear, LLP
925 Fourth Avenue, Suite 2500
Seattle, WA 98104

Hon. Brenda K. Sannes, United States District Judge:

MEMORANDUM-DECISION AND ORDER

I. INTRODUCTION

Plaintiffs Rensselaer Polytechnic Institute and CF Dynamic Advances LLC bring this patent infringement action against Defendant Amazon.com, Inc. (Dkt. No. 1). The matter was referred to United States Magistrate Judge David E. Peebles on the issue of claim construction. (Dkt. No. 150). The parties filed three rounds of briefing, and a *Markman* claim construction hearing was held on April 29, 2021. (Dkt. Nos. 142, 143, 147, 148, 153, 155, 162). On September 30, 2021, Magistrate Judge Peebles issued a Report and Recommendation recommending certain claim term constructions. (Dkt. No. 168). Amazon filed objections to the Report and Recommendation, arguing that Magistrate Judge Peebles erred by not finding certain claims indefinite and in the construction of other terms. (Dkt. No. 176). Plaintiffs responded to Amazon's objections, (Dkt. No. 183), and, with the Court's permission, both parties filed supplemental briefs, (Dkt. Nos. 187, 188-1). For the following reasons, the Report and Recommendation is adopted.

II. STANDARD OF REVIEW

The Court reviews de novo those portions of the Magistrate Judge's findings and recommendations that have been properly preserved with a specific objection. *Petersen v.*

Astrue, 2 F. Supp. 3d 223, 228–29 (N.D.N.Y. 2012); 28 U.S.C. § 636(b)(1)(C). “A proper objection is one that identifies the specific portions of the [Report and Recommendation] that the objector asserts are erroneous and provides a basis for this assertion.” *Kruger v. Virgin Atl. Airways, Ltd.*, 976 F. Supp. 2d 290, 296 (E.D.N.Y. 2013) (citation omitted). Properly raised objections must be “specific and clearly aimed at particular findings” in the report. *Molefe v. KLM Royal Dutch Airlines*, 602 F. Supp. 2d 485, 487 (S.D.N.Y. 2009). Findings and recommendations as to which there was no properly preserved objection are reviewed for clear error. *Id.* To the extent a party makes “merely perfunctory responses, argued in an attempt to engage the district court in a rehashing of the same arguments” in the original submission, the Court will only review for clear error. *Ortiz v. Barkley*, 558 F. Supp. 2d 444, 451 (S.D.N.Y. 2008) (internal quotation marks omitted).

III. ANALYSIS

The parties have not raised any objections to the facts or the legal framework set forth in the Report and Recommendation. (*See* Dkt. No. 168, at 2–19). The Court therefore adopts Magistrate Judge Peebles’s summary of the case and applicable law, and presumes familiarity with those matters for the purposes of this decision. The Court also adopts those aspects of the Report and Recommendation to which neither party has objected, finding no clear error therein. *See Molefe*, 602 F. Supp. 2d at 487.

A. Indefiniteness

The Report and Recommendation first addressed Amazon’s argument that five claim limitations of United States Patent No. 7,177,798 (the “’798 Patent”)¹ are indefinite because they

¹ The ’798 Patent is found on the docket at Dkt. Nos. 1-1, 142-2, and 143-2.

recite functions without also reciting acts sufficient to accomplish those functions. (*See* Dkt. No. 142, at 12–21). Under 35 U.S.C. § 112, ¶ 6:²

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Magistrate Judge Peebles found that the five claim limitations at issue are not subject to § 112, ¶ 6, determining that Amazon had not rebutted the presumption that claim limitations without “means for” or “step for” language fall outside the statute. (Dkt. No. 168, at 19–24).³ As set forth below, Magistrate Judge Peebles found that the five claim limitations recited acts, rather than functions, and he specifically identified the underlying function for four of the five claim limitations.

CLAIM LIMITATION	ACT	FUNCTION
providing, through a user interface, a result of the search to the user (Claim 1)	provide the result through a user interface	to output a result of the natural language input
determining a plurality of combinations of the finite number of database objects (Claim 1)	determining a plurality of combinations of the finite database objects	to determine candidate interpretations of the natural language input
identifying a finite number of permutations of the plurality of database objects (Claim 9)	identifying a finite number of permutations of the database objects	to determine candidate interpretations of the natural language input

² The Leahy-Smith America Invents Act (“AIA”), which took effect in 2012, renumbered § 112, ¶ 6 to § 112(f). Because the application for the ’798 Patent was filed before the AIA’s effective date, the Court uses the pre-AIA section numbering.

³ Amazon does not challenge, and the Court finds no clear error in, Magistrate Judge Peebles’s application of an unweighted presumption against applying § 112, ¶ 6 to claim terms without “means for” or “step for” language. *See In re Neurografix (’360) Patent Litig.*, 201 F. Supp. 3d 206, 213–14 (D. Mass. 2016).

CLAIM LIMITATION	ACT	FUNCTION
interpreting at least one of the permutations to provide determination of a result of the natural language input (Claim 9)	interpreting at least one of the permutations to provide determination of a result of the natural language input	to determine the best candidate interpretation of the natural language input
resolving ambiguity between the keywords and the plurality of combinations (Claim 5)	resolving ambiguity between the keywords and the plurality of combinations	

(Dkt. No. 168, at 24–30). Because he found that § 112, ¶ 6 did not apply, Magistrate Judge Peebles recommended not construing these five claim limitations. (*Id.* at 30).

Amazon argues that the Report and Recommendation erred by concluding that these five claim limitations recite no functions and therefore are not subject to § 112, ¶ 6. (Dkt. No. 176, at 15–18). Specifically, Amazon argues that the Report and Recommendation ignored the “unrebutted testimony” of its expert, Dr. Earl Sacerdoti, and the “unrebutted testimony and documents from the inventors” showing that they did not disclose “any way to achieve [the] aspirational computing functions” in the ’798 Patent. (*Id.* at 15). Plaintiffs respond that the Report and Recommendation correctly determined that these claim limitations recite acts and not functions; the underlying functions can be found in the specification; and Dr. Sacerdoti’s testimony was rebutted by the opinions of Plaintiffs’ expert, Dr. Steven Shwartz. (Dkt. No. 183, at 16–21).

The Federal Circuit has explained that, with regard to method claims, § 112, ¶ 6 is “implicated only when steps *plus function* without acts are present.” *O.I. Corp. v. Tekmar Co., Inc.*, 115 F.3d 1576, 1583 (Fed. Cir. 1997); *see id.* (“[C]laiming a step by itself, or even a series of steps, does not implicate section 112, ¶ 6.”). Where a method claim “does not contain the term ‘steps for,’ a limitation of that claim cannot be construed as a step-plus-function limitation

without a showing that the limitation contains *no act*.” *Masco Corp. v. United States*, 303 F.3d 1316, 1327 (Fed. Cir. 2002) (brackets omitted and emphasis added). Although Amazon argues that a claim reciting a function must also recite acts *sufficient* to perform that function, (Dkt. No. 176, at 18), *Masco*’s holding that a limitation containing any act is not in step-plus-function form is still good law. *See In re Neurografix*, 201 F. Supp. 3d at 217 (noting that means-plus-function and step-plus-function terms are not governed by identical standards and collecting cases applying *Masco* after *Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015) (en banc)).⁴

“Unfortunately, method claim elements often recite phrases susceptible to interpretation as either a function or as an act for performing a function.” *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 172 F.3d 836, 849 (Fed. Cir. 1999) (Rader, J., concurring); *see id.* (noting that both acts and functions “are often stated with verbs ending in ‘ing’”).⁵ Generally, the “underlying function” of a method claim element refers to “*what* that element ultimately accomplishes in relationship to what the other elements of the claim and the claim as a whole accomplish,” while “acts” refer to “*how* the function is accomplished.” *Id.* at 849–50. Moreover, if the “language of the claim element does not expressly state its function, the function of that element may nonetheless be discernible from the context of the overall claim and the disclosure in the specification.” *Id.* at 850.

⁴ The Court notes that the cases on which Amazon relies, (Dkt. No. 176, at 18), are means-plus-function cases, not step-plus-function cases. *See Synchronoss Techs., Inc. v. Dropbox, Inc.*, 987 F.3d 1358, 1367 (Fed. Cir. 2021) (finding the term “user identifier module” indefinite for failure to “correspond to ‘adequate’ structure in the specification”); *Dionex Softron GmbH v. Agilent Techs., Inc.*, 811 F. App’x 630, 632 (Fed. Cir. 2020) (summary order) (affirming finding that “the involved apparatus claims are indefinite” under 112, ¶ 6 for failure to disclose a structure).

⁵ The Court also notes that the Federal Circuit has described the “circumstances in which § 112, para. 6 relates to the functional language of a method claim” as “unusual.” *Williamson*, 792 F.3d at 1349; *see also O.I. Corp.*, 115 F.3d at 1583 (“If we were to construe every process claim containing steps described by an ‘ing’ verb . . . into a step-plus-function limitation, we would be limiting process claims in a manner never intended by Congress.”).

Here, upon de novo review, the Court agrees with Magistrate Judge Peebles that the five claim elements recite acts, and therefore are not step-plus-function claim elements subject to § 112, ¶ 6. In coming to this conclusion, Magistrate Judge Peebles relied on the opinions of Dr. Shwartz and cited specific portions of the specification supporting his determination of the underlying function of four of the elements. (*See* Dkt. No. 168, at 24–30). In its objections, Amazon discusses only one claim element specifically: claim 9’s “interpreting at least one of the permutations to provide determination of a result of the natural language input.” (*See* Dkt. No. 176, at 16–17). As Amazon notes, Dr. Sacerdoti opined that this claim element “recites a function to be performed” because “result” refers “to an effect or outcome,” and the word “interpreting” does not specify how that result is reached. (Dkt. No. 142-14, at ¶¶ 77–78). However, the Court rejects Amazon’s argument that Dr. Sacerdoti’s testimony was “unrebutted.” (*See* Dkt. No. 176, at 17). The parties’ experts provided competing opinions regarding the underlying functions of each of the disputed claim limitations. Dr. Shwartz opined that the “underlying function” of claim 9’s “interpreting” limitation is “to determine the best candidate interpretation of the natural language input.” (Dkt. No. 144, at ¶ 74). He found support for this opinion in the specification of the ’798 Patent. (*Id.* (citing ’798 Patent at 33:37–39)).

Amazon argues that Dr. Shwartz “never testified that the claim element is not functional.” (Dkt. No. 176, at 17). However, the only reasonable interpretation of Dr. Shwartz’s opinions is that the five claim limitations at issue recite acts which accomplish the underlying function he identified for each. (*See* Dkt. No. 144, at ¶¶ 68–74). Magistrate Judge Peebles expressly relied on Dr. Shwartz’s declaration, noting that the “’798 Patent specification supports this conclusion [regarding the “interpreting” limitation] insofar as it explains that “[t]he basic idea of search is to enumerate all possible paths (query graphs) and to evaluate (rank) them to

determine the best path (interpretation) for a query.” (Dkt. No. 168, at 28 (referencing Dr. Schwartz’s declaration and quoting ’798 Patent at 33:37–39)); *see also Seal-Flex*, 172 F.3d at 850 (noting that a function may be “discernible from the context of the overall claim and the disclosure in the specification”). Thus, the “interpreting” limitation can be construed as an act which accomplishes the function of determining the best interpretation of the natural language input, which is the function the “interpreting” limitation achieves in relation to claim 9’s overall function of “processing a natural language input.” (’798 Patent at 37:15–29); *cf. Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 381 F.3d 1371, 1381 (Fed. Cir. 2004) (holding that the clause “determining a condition of the heart from among a plurality of conditions of the heart” was not in § 112, ¶ 6 form simply because it constituted a step in a method claim); *EBS Dealing Resources, Inc. v. Intercontinental Exchange, Inc.*, 379 F. Supp. 2d 521, 529 (S.D.N.Y. 2005) (finding claim terms beginning with the verbs “administering” and “deriving” to be “steps without functions” which were part of the “how” of the claim’s ultimate function).⁶

Because the Court agrees with Magistrate Judge Peebles that the claim limitations recite acts, it need not address Amazon’s arguments regarding the analysis necessary for claims that recite a function, i.e. consideration of whether the claim also recites “acts sufficient to perform that function,” and, if not, whether the specification discloses such acts. (*See* Dkt. No. 176, at 18–19). Further, as Magistrate Judge Peebles noted, the question of whether the patentees had a working prototype of the invention disclosed in the ’798 Patent is both “vigorously dispute[d]” by the parties and “not legally relevant to the claim construction inquiry.” (Dkt. No. 168, at 31

⁶ Although Amazon discusses only claim 9’s “interpreting” element with any particularity in its objections, the same reasoning applies to the other four claim limitations at issue: Dr. Sacerdoti’s testimony was not “unrebutted,” and the specification and Dr. Schwartz’s declaration provide support for the determination that the limitations recite acts serving other underlying functions. (*See* Dkt. No. 168, at 24–30; Dkt. No. 144, at ¶¶ 68–74).

n.14). The Court therefore does not consider Amazon’s arguments that the inventors “never made their idea work.” (Dkt. No. 176, at 19).

Accordingly, the Court adopts Magistrate Judge Peebles’s recommendation to conclude that § 112, ¶ 6 does not apply to the five method claim limitations. The Court further adopts the recommendation that the claim terms not be construed, as they appear to be readily understandable and Amazon has not offered alternative proposed constructions. It bears emphasis that the Court’s holding is that the five claim limitations at issue are not step-plus-function elements subject to § 112, ¶ 6. As Magistrate Judge Peebles noted, Amazon is still free to argue that the claims are indefinite under § 112, ¶ 2, among other defenses.⁷

B. Other Disputed Claim Constructions

The Report and Recommendation next construed certain disputed terms of the ’798 Patent. (Dkt. No. 168, at 31–49). Amazon objects to the recommended constructions of the phrases “based on the input, without augmentation,” “result of the natural language input,” and “case information.” (Dkt. No. 176, at 19–30). The Court reviews these objections de novo.

1. “based on the input, without augmentation”

PLAINTIFFS’ PROPOSED CONSTRUCTION	AMAZON’S PROPOSED CONSTRUCTION	REPORT AND RECOMMENDATION CONSTRUCTION
based solely on the natural language input without augmentation	based solely on the natural language input without additional sources of input or constraints on how the natural language is expressed	based solely on the natural language input without augmentation

⁷ 35 U.S.C. § 112, ¶ 2 (2000) provides: “The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” In addition, the Court notes that “[i]dentifying an act to see if ¶ 6 applies (step-plus-function identification) is an inherently less searching inquiry than analyzing the same act under ¶¶ 1–2 (enablement, written description, definiteness).” *Neurografix v. Regents of Univ. of California*, No. 11-cv-7591, 2012 WL 8281409, at *6–7, 2012 U.S. Dist. LEXIS 188350, at *18–20 (C.D. Cal. June 13, 2012) (citing *Seal-Flex*, 172 F.3d at 836).

Claim 1 of the '798 Patent recites: “A method for processing a natural language input provided by a user, the method comprising: . . . performing, *based on the input, without augmentation*, a search” ('798 Patent at 36:38–42 (disputed term italicized)). Magistrate Judge Peebles recommended that the term “based on the input, without augmentation” be construed to mean “based solely on the natural language input without augmentation.” (Dkt. No. 168, at 32–35).⁸ Amazon argues that the Report and Recommendation erred in its construction because (1) it agreed with Amazon that its proposed additions could constitute forms of “augmentation,” (2) the construction does not fully resolve the parties’ dispute over the scope of the term, and (3) it misapplied the doctrine of claim differentiation. (Dkt. No. 176, at 20–23). Plaintiff responds that the Report and Recommendation (1) only agreed that Amazon’s proposed examples were “potential” means of augmentation, (2) correctly applied the doctrine of claim differentiation, (3) found that Amazon’s proposed additions were unnecessary in the face of clear language, and (4) fully resolved the parties’ dispute. (Dkt. No. 183, at 24–26).

The Court adopts the Report and Recommendation’s construction for two reasons. First, adding the qualifier “without . . . constraints on how the natural language is expressed” would violate the doctrine of claim differentiation. Under the doctrine of claim differentiation, “[t]here is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Tandon Corp. v. United States Int’l Trade Comm’n*, 831 F.2d 1017, 1023 (Fed. Cir. 1987)). Although this doctrine is not a “hard and fast rule of construction,” it is “at its strongest where the limitation sought to be read into an independent claim already appears in a dependent

⁸ This is the same construction given to the term in another case involving the '798 Patent. See *Rensselaer Polytechnic Institute v. Apple Inc.*, No. 13-cv-633, Dkt. No. 104 (N.D.N.Y. June 12, 2014) (the “Apple decision”). The Apple decision can be found at Dkt. Nos. 142-6 and 143-3.

claim.” *Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1368–69 (Fed. Cir. 2005) (citations omitted). Here, claim 7 reads: “The method of claim 1 wherein providing a natural language query input by the user includes providing a natural language query input by the user without constraining said query grammatically or structurally.” (’798 Patent at 37:8–11). As Magistrate Judge Peebles noted, construing “augmentation” to mean “constraints on how the natural language is expressed” would render claim 7 superfluous. (*See* Dkt. No. 168, at 34–35).

Amazon first objects that the prosecution history shows that the applicants stated that the language “without augmentation” was intended to be “redundant,” and therefore it would make no sense to presume that the term is not superfluous. (Dkt. No. 176, at 22–23; *see* Dkt. No. 142-5, at 38 (applicants distinguishing prior art reference Szabo and stating that the language of claim 1 “has been amended to recite (redundantly) that the search is performed on the input ‘without augmentation’”). However, it is clear from the prosecution history that the applicants were inserting what they perceived to be “redundancy” into the language of claim 1 itself; the added language does not introduce any redundancy between claim 1 and claim 7. (*See* Dkt. No. 142-5, at 38). Amazon also argues that claim 7 is “more specific” than claim 1 would be under its proposed construction, because it lists “two specific types of constraints: grammatical and structural.” (Dkt. No. 176, at 23). However, it is unclear in what other ways the natural language input could be constrained, and therefore how claim 7 would differ from claim 1 under Amazon’s construction. Accordingly, adopting Amazon’s “constraints” language would violate the doctrine of claim differentiation’s presumption that the different language in claim 1 and claim 7 should be construed differently. *See Comark Commc’ns*, 156 F.3d at 1187 (finding party had not sufficiently rebutted the presumption that independent claim should “not be so limited in order to preserve the distinction” between that claim and dependent claim).

Second, the Court agrees that recommended construction is sufficiently clear and Amazon’s proposed additions are unnecessary. (Dkt. No. 168, at 35). The construction specifies that the search being performed in claim 1 must be based “solely” on the “natural language” input, “without augmentation.”⁹ This necessarily means that the search is performed “without additional sources of input.” Accordingly, the Court adopts the Report and Recommendation’s construction of “based on the input, without augmentation.” *See Eon Corp. IP Holdings v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1318 (Fed. Cir. 2016) (observing that “a sound claim construction need not always purge every shred of ambiguity” (quoting *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007))).

2. “result of the natural language input”

PLAINTIFFS’ PROPOSED CONSTRUCTION	AMAZON’S PROPOSED CONSTRUCTION	REPORT AND RECOMMENDATION CONSTRUCTION
No construction necessary, or alternatively given plain and ordinary meaning	result of the natural language input alone, without additional sources of input or constraints on how the natural language is expressed	No construction necessary

Claim 9 of the ’798 Patent, an independent claim, recites: “A computer-implemented method for processing a natural language input comprising: . . . interpreting at least one of the permutations to provide determination of a *result of the natural language input*.” (’798 Patent at 37:15–29 (disputed term italicized)). Magistrate Judge Peebles recommended that the Court decline to construe “result of the natural language input,” finding that the applicants’ statements distinguishing the ’798 Patent from prior art reference Szabo during the patent’s prosecution did

⁹ In accordance with the parties’ jointly proposed constructions, “natural language input” is construed to mean “input that is articulated in a human language in a way that a native speaker could understand and use sensibly.” (Dkt. No. 168, at 50).

not rise to the level of disavowal. (Dkt. No. 168, at 36–38). Amazon argues that the Report and Recommendation erred because (1) it did not consider Amazon’s arguments that Plaintiffs disavowed claim scope in a 2019 inter partes review (“IPR”) filing and (2) disavowal can result from arguments made about a specific prior art, such as Plaintiffs’ statements distinguishing Szabo in the ’798 Patent’s prosecution history. (Dkt. No. 176, at 23–25). Plaintiffs respond that (1) Amazon never disputes that claim 9 was not amended to include the term “without augmentation,” as claim 1 was; (2) the statements from Plaintiffs’ IPR response to which Amazon points relate to claim 1 and not claim 9; and (3) Magistrate Judge Peebles properly found that Plaintiffs’ statements during prosecution did not rise to the level of a disavowal. (Dkt. No. 183, at 26–27).

Although Plaintiffs argue that Amazon is simply attempting to relitigate “the same ‘disavowal’ argument from its *Markman* briefing,” (Dkt. No. 183, at 26), Amazon’s objection that the Report and Recommendation failed to expressly address Amazon’s argument that Plaintiffs’ IPR response disavowed “augmentation” in claim 9 warrants de novo review. (See Dkt. No. 168, at 36–38). The Court therefore considers Plaintiffs’ patent owner preliminary response to Amazon’s IPR petition challenging claims 9–21 of the ’798 Patent. See *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1362 (Fed. Cir. 2017) (holding that “statements made by a patent owner during an IPR proceeding, whether before or after an institution decision, can be considered for claim construction and relied upon to support a finding of prosecution disclaimer”). As an initial matter, the parties dispute whether the references to “without augmentation” in Plaintiffs’ IPR response refer to claim 1 or claim 9. (See Dkt. No. 176, at 24; Dkt. No. 183, at 26; Dkt. No. 187, at 5–7; Dkt. No. 188-1, at 5–6). Amazon filed two separate IPR petitions: one challenging claims 1–8 of the ’798 Patent and one challenging claims

9–21. (*See* Dkt. Nos. 142-7, 142-8). Amazon cites three excerpts from Plaintiffs’ IPR response to the petition challenging claims 9–21. (*See* Dkt. No. 176, at 24). First, Plaintiffs’ IPR response lists “without augmentation” as one of the “key limitations required by the Challenged Claims,” i.e., claims 9–21. (Dkt. No. 142-10, at 10; *see id.* at 9 (defining “Challenged Claims” as claims 9–21)). Second, the response states that the “Challenged Claims require ‘receiving a natural language,’ without augmentation,” citing the section of the response detailing the ’798 Patent’s prosecution history and the amendment of claim 1. (*Id.* at 35). Third, the response states: “Because neither [prior art reference] discloses a natural language system without augmentation, their combination will not result in the claimed invention of the ’798 Patent. Accordingly, the [combination] does not render the Challenged Claims of the ’798 Patent obvious.” (*Id.* at 51).

After carefully considering the parties’ submissions, the Court concludes that, even to the extent the excerpts Amazon cites refer to claim 9, the statements do not rise to the level of a clear and unmistakable disavowal of claim scope. The first reference listing “without augmentation” as a “key limitation” of the Challenged Claims appears in identical form in Plaintiffs’ response to the IPR petition challenging claims 1–8; indeed, the introduction sections of the two responses are virtually identical. (*Compare* Dkt. No. 142-9, at 9–10, *with* Dkt. No. 142-10, at 9–10). The second reference, while tying “without augmentation” to “receiving a natural language [input]” (and not the “interpreting” limitation at issue here), cites to the explanation of the ’798 Patent’s prosecution history and the amendment of claim 1. (Dkt. No. 142-10, at 35; *see also id.* at 22 (“Patent Owner also amended the claims . . . to add the limitation that the claimed *search* be performed ‘without augmentation.’” (emphasis added))).¹⁰ Further, the “Relevant Prosecution

¹⁰ It is undisputed that only claim 1 was amended to include the term “without augmentation.” (*See* Dkt. No. 142-5, at 38–39).

History” section cited to is identical in both IPR responses. (*Compare* Dkt. No. 142-9, at 21–22 with Dkt. No. 142-10, at 21–22). Finally, the third reference discusses the “*system* disclosed in the ’798 Patent” and specifically cites to the “without augmentation” term in claim 1. (Dkt. No. 142-10, at 51 (citing ’798 Patent at 36:41) (emphasis added)). Because these excerpts relate to the ’798 Patent generally, appear in both IPR responses in virtually identical form, and/or explicitly cite claim 1’s language, the Court finds they do not rise to the level a “clear and unmistakable” disavowal of “augmentation” from claim 9 specifically. *See SanDisk Corp. v. Memorex Prods., Inc.*, 415 F.3d 1278, 1287 (Fed. Cir. 2005) (“There is no ‘clear and unmistakable’ disclaimer if a prosecution argument is subject to more than one reasonable interpretation.”); *see also Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012) (describing the “standard for disavowal of claim scope” as “exacting”).

With regard to the ’798 Patent’s original prosecution history, Amazon argues that the Report and Recommendation erred in not finding disavowal on the ground that the “applicants’ statements were in reference to a specific prior art.” (Dkt. No. 176, at 24–25 & n.6 (citing Dkt. No. 168, at 38) (collecting cases where disavowal is based on arguments made about specific prior art)). Magistrate Judge Peebles acknowledged that a patentee may “disavow claim scope by distinguishing the claimed invention over the prior art,” (Dkt. No. 168, at 12 (citing *Techtronic Indus. Co. Ltd. v. Int’l Trade Comm’n*, 944 F.3d 901, 907 (Fed. Cir. 2019))), but ultimately found that Plaintiffs’ statements distinguishing Szabo “[did] not reflect [their] clear intention to cabin the natural language input as strictly as Amazon now proposes,” (*id.* at 37–38). After reviewing the prosecution history statements de novo, the Court concludes that Plaintiffs did “clear[ly] and unmistakab[ly]” disclaim inputs other than the natural language input in claim 9. Plaintiffs clearly stated: ““interpreting at least one of the permutations to determine a result of the natural

language input’ *does preclude other inputs*. Otherwise, logically speaking, the result would not be ‘of the natural language input’ but of something else.” (Dkt. No. 142-5, at 39 (emphasis added)). Based on this statement, it is clear that the “result” referred to in claim 9 must be “of the natural language input” and not of any other inputs.

However, the Court nonetheless adopts the Report and Recommendation’s conclusion that no construction of the term “result of the natural language input” is necessary. As Plaintiffs argued in the prosecution history, the logic of the plain and ordinary meaning of the phrase precludes other inputs. Accordingly, the Court declines to construe the term.

3. “case information”

PLAINTIFFS’ PROPOSED CONSTRUCTION	AMAZON’S PROPOSED CONSTRUCTION	REPORT AND RECOMMENDATION CONSTRUCTION
information about prior instances of use of the natural language processing method	Indefinite	information about prior instances of use of the natural language processing method

The term “case information” appears in independent claims 1 and 9 of the ’798 Patent, thereby implicating all claims. (*See* ’798 Patent at 36:43–45 (claim 1 reciting “at least one metadata database comprising at least one of a group of information types comprising: case information . . .”); *id.* at 37:22–24 (claim 9 reciting “a metadata database comprising at least one of a group of information comprising case information . . .”).¹¹ Magistrate Judge Peebles construed “case information” to mean “information about prior instances of use of the natural

¹¹ The term “case” appears in plural form in dependent claims 14 and 17. (’798 Patent at 38:3–6, 21–23). The parties agree that construction of “case information” is determinative of the proper construction of “case.” (*See* Dkt. No. 168, at 43). The Report and Recommendation construed “case” to mean “a prior use of the natural language processing method.” (*Id.*).

language processing method.” (Dkt. No. 168, at 43–46).¹² Amazon, who contends that the term “case information” is indefinite, objects to the Report and Recommendation’s construction for three reasons. (*See* Dkt. No. 176, at 25–30).

a. “the natural language method”

Amazon first objects that the Report and Recommendation never addressed its argument that use of the definite article “the” renders the construction indefinite because “the natural language processing method” does not refer to a specific method. (*Id.* at 25–27; *see also* Dkt. No. 148, at 25–26). Amazon points to the deposition testimony of Plaintiffs’ expert, Dr. Schwartz, whose “understanding” was that the phrase “the natural language processing method” “refers to all the claims as well as all the embodiments and other embodiments that might not have been described.” (Dkt. No. 148-3, at 10). Amazon argues that this is an “unbounded description” which shows that the construction “fails to clearly identify the method in question.” (Dkt. No. 176, at 26).

After considering Amazon’s argument *de novo*, the Court concludes that the phrase “the natural language processing method” does not render the construction indefinite. First, as Plaintiffs point out, Dr. Schwartz’s testimony is consistent with the “well-settled principle that a term is limited to ‘the invention described in the patent,’ not to preferred embodiments.” (Dkt. No. 183, at 28 (citing Dkt. No. 148-3, at 9–10 (“When we talk about the natural language product, my understanding is we’re referring to the *invention described in this patent*, which has multiple sets of independent claims and multiple embodiments.” (emphasis added))). The Report and Recommendation’s construction is also consistent with PTAB’s decision denying Apple’s

¹² This is the same construction given to the term in the *Apple* decision as well as by the Patent Trial and Appeal Board (“PTAB”) in its decision denying Apple’s petition for institution of IPR review of the ’798 Patent. (*See* Dkt. No. 143-3, at 45; Dkt. No. 143-4, at 6–7).

petition for institution of IPR review of the '798 Patent. (*See* Dkt. No. 143-4, at 7). There, PTAB “agree[d] with Patent Owner that the prior uses must be uses of the system *contemplated by the invention*, not uses of any other natural language processing system.” (*Id.* (emphasis added)). PTAB therefore construed “case information” to mean “information about prior instances of use of the natural language processing method.” (*Id.*).¹³

Moreover, the case Amazon cites to support its argument is distinguishable from the present case. (*See* Dkt. No. 176, at 26–27 (citing *Imaginal Systematic, LLC v. Leggett & Platt, Inc.*, 805 F.3d 1102 (Fed. Cir. 2015)). In *Imaginal*, one of the asserted claims recited “moving the fastening tool without the use of a vision guidance system.” 805 F.3d at 1109. The patentee sought to limit the term “vision guidance system” to only one particular system from a related patent. *Id.* The Federal Circuit rejected the patentee’s argument, noting that the claim used the term “generically” by use of the indefinite article “a.” *Id.* (noting that “a” means “one or more—rather than a specific system”). Moreover, the written description of the patent used the term “vision guidance system” to refer to at least two different systems. *Id.* at 1010. Here, by contrast, the construction uses the definite article “the,” not the indefinite article “a.” The phrase “the natural language processing method” is reasonably understood to refer to the method(s) disclosed by the '798 Patent, not to any natural language processing method whatsoever. (*See* Dkt. No. 148-3, at 90–10; Dkt. No. 143-4, at 7). Furthermore, Amazon’s argument that the '798 Patent “purports to describe many methods,” (Dkt. No. 176, at 26), does not alter the Court’s conclusion, as the term “case information” implicates all claims of the patent.

¹³ PTAB also adopted this construction for purposes of its decision denying Amazon’s petitions for IPR review of the '798 Patent. (Dkt. No. 143-7, at 10–11).

b. Contradiction in the Intrinsic Record

Amazon next argues that the Report and Recommendation erred in rejecting the argument that a contradiction in the intrinsic record renders the term “case information” indefinite. (Dkt. No. 176, at 27–29). Specifically, Amazon argues that the ’798 Patent specification’s disclosure of “case information” conflicts with statements Plaintiffs made in its IPR response and that the Report and Recommendation erroneously relied on “problem definition” and “solution” requirements to find the term definite. (*Id.*). Plaintiff responds that the Report and Recommendation properly found no contradiction in the intrinsic record and Amazon’s argument that user clarifications have been excluded from “case information” has been rejected previously. (Dkt. No. 183, at 29–30).

In arguing there is a contradiction in the intrinsic record, Amazon first points to the ’798 Patent specification, which explains that a user’s clarifying input may be “case information.” (*See, e.g.*, ’798 Patent at 17:58–63 (“The [natural language interface] systematically involves users to provide the final resolution of ambiguity and confirmation of the result if needed. This learning also generates new cases and keywords and enhances the old cases.”)). Amazon then argues that Plaintiffs contradicted the specification in its response to Amazon’s IPR petition challenging claims 1–8. (*See* Dkt. No. 142-9). In distinguishing prior art reference Meng, Plaintiffs stated that Meng’s “learning” was “provided from clarifying input of the user.” (*Id.* at 49). Plaintiffs distinguished Meng’s learning because “*Meng* only stores information consisting of the user’s clarifying input, as opposed to any self-learning or storage of past cases (or use of said case information).” (*Id.* at 49–50). This was consistent with Plaintiffs’ general distinction between rote-based learning, as in *Meng*, and case-based learning. (*Id.* at 18–20).

The Court agrees with the Report and Recommendation’s conclusion that Plaintiffs did not disclaim user clarification from “case information” in their IPR response or otherwise create

a contradiction in the intrinsic record. (Dkt. No. 168, at 44–45 (finding Amazon’s interpretation of Plaintiffs’ IPR response a “tortured one that ignores the context in which the explanation was offered”)). Plaintiffs did not argue that all user clarifications are not “case information” or not capable of becoming part of “case information,” but merely distinguished between “only” using clarifying input without using “past instances” of the method. (Dkt. No. 142-9, at 49–50). Moreover, Plaintiffs specifically stated in their response that the ’798 Patent “explains that ‘cases’ can be generated during prior conversations with the user.” (*Id.* at 19 (citing ’798 Patent at 5:36–37)). They therefore did not disclaim user clarifications from “case information,” and the Court rejects Amazon’s premise that there is a contradiction in the record.¹⁴

The Court also finds no error in the Report and Recommendation’s discussion of the “problem definition” and “solution” requirements. Although Amazon argues that Plaintiffs did not rely on these requirements before PTAB, their IPR response did discuss them as part of its description of case-based learning. (*See* Dkt. No. 142-9, at 19 (noting that “a ‘case in a case-based reasoning paradigm typically includes three components: problem definition, solution, and its outcome’” (citing ’798 Patent at 16:52–54))). In any event, the Court is not limited to considering only those arguments Plaintiffs made in the prosecution history. Magistrate Judge Peebles also relied on Dr. Shwartz’s opinion that “user dialogues and the result of the user dialogues can be stored as part of a case.” (Dkt. No. 168, at 45 (first citing Dkt. No. 147-2, at 12; then citing Dkt. No. 142-15, at 18–19); *see also* Dkt. No. 144, at ¶¶ 45–46 (opining that, while “[n]ot just any information from a user clarification” is case information, “information from a user clarification can *become* part of the case information”) (emphasis added)).

¹⁴ PTAB likewise did not construe “case information” “to exclude clarifications from users.” (Dkt. No. 143-5, at 6).

In sum, the Court finds no contradiction in the intrinsic record that would render the term “case information” indefinite.

c. Problem and Solution Requirement

Finally, Amazon argues that the Report and Recommendation erred by overlooking its position on how the term “case information” should be construed if not found indefinite. (Dkt. No. 176, at 29–30). The Report and Recommendation stated: “Aside from arguing indefiniteness, Amazon has not taken a position regarding the proper construction of [‘case information’].” (Dkt. No. 168, at 43). Although Amazon did not provide a proposed construction, in its briefing it asserted that: “If the Court does not find ‘case information’ indefinite, it should adopt a construction that makes clear whether this term *requires* a problem and solution specific to a single instance of use.” (Dkt. No. 148, at 25; *see also* Dkt. No. 162, at 115–16 (same position taken at *Markman* hearing)). Amazon now contends that the Report and Recommendation should have included the requirements of a “problem definition” and “solution” in its construction of “case information” after relying on them to reject Amazon’s indefiniteness argument. (Dkt. No. 176, at 29–30). Plaintiffs respond that the Report and Recommendation’s construction “already incorporates [the] concepts” of a problem definition and solution, because “the natural language processing method” uses case-based reasoning, and that a claim construction need not “specifically define every word.” (Dkt. No. 183, at 30).

Because Amazon has not proposed specific language for a construction for “case information” during this litigation, including in its objections, the Court will not adopt a

construction that the parties have not had an opportunity to address.¹⁵ Accordingly, the Court adopts the Report and Recommendation's construction of "case information."


IV. CONCLUSION

For these reasons, it is hereby

ORDERED that the Report and Recommendation (Dkt. No. 168) is **ADOPTED** in all respects and the recommended claim constructions of the '798 Patent are adopted.

IT IS SO ORDERED.

Dated: March 18, 2022
Syracuse, New York


Brenda K. Sannes
U.S. District Judge

¹⁵ The Court notes that Plaintiffs do not dispute that the term "case" in the context of case-based reasoning has an ordinary and customary meaning in the art, and that the "customary meaning—agreed to by both parties' experts—includes a 'problem' and a 'solution.'" (See Dkt. No. 147, at 23 (citations omitted); Dkt. No. 188-1, at 7).